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10/652,758	08/29/2003	Maung W. Han	ALPINE.032AUS	1752

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2179	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/652,758	HAN, MAUNG W.	
	Examiner	Art Unit	
	Thuy Osberg	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05/21/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-13 and 15-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-13 and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to amendment filed 05/21/2007 to the original application filed 08/29/2003. **This action is made Final.**

   A. Claims 1-3, 5-13 and 15-20 are pending in the application.

   B. Claims 4 and 14 were canceled.

   C. Claims 1-3, 5, 11-13 and 15-20 were amended.

Claim Rejections - 35 USC § 103

2. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-3, 5-13 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nimura et al. (US Patent 6,202,026) in view of Morimoto et al. (US Patent 6,351,706), hereinafter "Nimura, Morimoto".**

As to independent claim 1 (currently amended), Nimura teaches a display method for a navigation system (Abstract; col. 1, lines 63-67), comprising the following steps of:

reading out map data from a map data storage for displaying a map image on a screen of navigation system (col. 2, lines 1-5);

converting the map data to screen coordinates so that an intended map image is displayed on a correct position on the screen (fig. 6, labels S11, S13; col. 7, lines 10-13, 43-45, 53-56);

zooming the map image by enlarging or shrinking distances of points on the map image relative to a center of the screen (fig. 13, labels 53-56; fig. 14A, 14B, 14C; fig. 15A, 15B; col. 9 lines 21-32, 40-48).

Nimura does not teach storing the map data converted to the screen coordinates in a memory which operates faster than the map data storage; and wherein the map data read out from the map data storage covers an area which is larger than that corresponds to the screen of the navigation system, and the converted data in the memory is used as is when zooming-in the map image, and additional map data is retrieved from the map data storage when zooming-out the map image when the converted map data in the memory is insufficient.

However, Morimoto teaches storing the map data converted to the screen coordinates in a memory (fig. 1, labels 1, 8; col. 3, lines 52-62; col. 13, lines 47-61; col. 10, lines 10-31) which operates faster than the map data storage (col. 5, lines 53-54, 66-67; col. 6, lines 1-6); and wherein the map data read out from the map data storage covers an area which is larger than that corresponds to the screen of the navigation system (col. 2, lines 25-34), and the converted data in the memory is used as is when zooming-in the map image (fig 1, label 8; col. 5, lines 53-58; fig. 2; col. 2, lines 34-40; col. 7, lines 19-25), and additional map data is retrieved from the map data storage when zooming-out the map image when the converted map data in the memory is insufficient (fig. 3; col. 8, lines 21-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nimura by storing the map data converted to the screen

coordinates in a memory which operates faster than the map data storage; and wherein the map data read out from the map data storage covers an area which is larger than that corresponds to the screen of the navigation system, and the converted data in the memory is used as is when zooming-in the map image, and additional map data is retrieved from the map data storage when zooming-out the map image when the converted map data in the memory is insufficient as taught by Morimoto in order to provide a continuous stream of data of updated information as the depicted image on screen is changed (zooming).

As to dependent claim 2 (currently amended), Nimura further teaches:
reading out the converted map data from the memory (col. 1, lines 63-67; col. 2, lines 1-5; col. 6, lines 7-16) and multiplying a map scale value which is larger than one, thereby enlarging the map image on the screen (fig. 13, labels S51-S55; fig. 14C, 14A; col. 9, lines 15-32, that the right screen of fig 14C (50m) is multiplied by 2 times larger in scale than the right screen of fig 14A (100m)).

As to dependent claim 3 (currently amended), Nimura further teaches:
reading out the converted map data from the memory (col. 1, lines 63-67; col. 2, lines 1-5; col. 6, lines 7-16) and multiplying a map scale value which is smaller than one, thereby shrinking the map image on the screen (fig. 13, labels S51-S55; fig 14A, 14C; col. 9, lines 15-32, that the right screen of fig. 14A (100m) is 2 times smaller in scale than the right screen of fig. 14C (50m)).

As to dependent claim 5 (currently amended), Nimura further teaches:

converting the additional map data with respect to the screen coordinates (fig. 9, label S41-S43; fig. 10A-10B; col. 8, lines 51-57, that coverts the data as the coordinates change in scrolling); combining the converted map data from the memory and the converted additional map data (col. 1, lines 63-67; col. 2, lines 1-5; col. 6, lines 7-16, that when the device is controlling the guidance it combines both map and converted data);
and displaying the map image encompassing a larger area than that covered by the original map image (fig. 13, labels S51-S55; fig 14A, 14C; col. 9, lines 15-32, that the right screen of fig. 14A (100m) is 2 times smaller in scale than the right screen of fig. 14C (50m)).

As to dependent claim 6, Nimura further teaches memory is a buffer memory or a map memory that is able to temporarily store the map data retrieved from the map data storage (fig. 1, labels 3, 4, 42; col. 6, lines 14-16).

As to dependent claim 7, Nimura further teaches map data storage is a CD-ROM (compact disc read only memory), DVD (digital versatile disc), or a hard disc which stores map information for conducting operations for the navigation system (fig. 1, labels 3; col. 4, lines 42-46).

As to dependent claim 8, Nimura further teaches step of zooming the map image (fig. 14A, 14B, 14C; col. 9 lines 21-32) includes a step of positioning an area of interest on the map image (fig. 1, label 2; col. 4, lines 60-63) to the center of the screen (fig 15A, 15B; col. 9 lines 40-48).

As to dependent claim 9, Nimura further teaches:

positioning an area of interest on the map image to the center of the screen (fig 15A, 15B; col. 9 lines 40-48);

zooming-in the map image to a degree that new information for selecting a destination is displayed on the screen (fig. 13, labels S51-S55; fig. 14C, 14A; col. 9, lines 15-32, that the right screen of fig 14C (50m) is multiplied by 2 times larger in scale than the right screen of fig 14A (100m));

and selecting the destination using the new information on the screen to calculate a route to the destination (col. 4, lines 60-67, col. 5 lines 1-3).

As to dependent claim 10, Nimura further teaches new information includes POI (point of interest) icons (fig. 15B, label "POLICE OFFICE, GS and POST OFFICE") showing positions and categories of POIs on the screen (fig. 15A; col. 10, lines 3-7).

As to independent claim11 (currently amended), Nimura teaches a display apparatus for a navigation system (Abstract; col. 1, lines 63-67), comprising:

means for reading out map data from a map data storage for displaying a map image on a screen of a navigation system (col. 2, lines 1-5);

means for converting the map data to screen coordinates so that an intended map image is displayed on a correct position on the screen (fig. 6, labels S11, S13; col. 7, lines 10-13, 43-45, 53-56);

means for zooming the map image by enlarging or shrinking distances of points on the map image relative to a center of the screen (fig. 13, labels 53-56; fig. 14A, 14B, 14C; fig. 15A, 15B; col. 9 lines 21-32, 40-48).

Nimura does not teach the means for storing the map data converted to the screen coordinates in a memory which operates faster than the map data storage; and wherein the map data read out from the map data storage covers an area which is larger than that corresponds to the screen of the navigation system, and the converted data in the memory is used as is when zooming-in the map image, and additional map data is retrieved from the map data storage when zooming-out the map image when the converted map data in the memory is insufficient.

However, Morimoto teaches the means for storing the map data converted to the screen coordinates in a memory (fig. 1, labels 1, 8; col. 3, lines 52-62; col. 13, lines 47-61; col. 10, lines 10-31) which operates faster than the map data storage (col. 5, lines 53-54, 66-67; col. 6, lines 1-6); and wherein the map data read out from the map data storage covers an area which is larger than that corresponds to the screen of the navigation system (col. 2, lines 25-34), and the converted data in the memory is used as is when zooming-in the map image (fig. 2; col. 2, lines 34-40; col. 7, lines 19-25), and additional map data is retrieved from the map data storage when zooming-out the map image when the converted map data in the memory is insufficient (fig. 3; col. 8, lines 21-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nimura by having the means for storing the map data converted to the screen coordinates in a memory which operates faster than the map data storage; and wherein the map data read out from the map data storage covers an area which is larger than that corresponds to the screen of the navigation system, and the converted data in the memory is used as is when zooming-in the map image, and additional map data is retrieved from the map data storage when zooming-out the map image when the converted map data in the

memory is insufficient as taught by Morimoto in order to provide a continuous stream of data of updated information as the depicted image on screen is changed (zooming).

As to dependent claim 12 (currently amended), Nimura further teaches:
means for reading out the converted map data from the memory (col. 1, lines 63-67; col. 2, lines 1-5; col. 6, lines 7-16) and multiplying a map scale value which is larger than one, thereby enlarging the map image on the screen (fig. 13, labels S51-S55; fig. 14C, 14A; col. 9, lines 15-32, that the right screen of fig 14C (50m) is multiplied by 2 times larger in scale than the right screen of fig 14A (100m)).

As to dependent claim 13 (currently amended), Nimura further teaches:
means for reading out the converted map data from the memory (col. 1, lines 63-67; col. 2, lines 1-5; col. 6, lines 7-16) and multiplying a map scale value which is smaller than one, thereby shrinking the map image on the screen (fig. 13, labels S51-S55; fig 14A, 14C; col. 9, lines 15-32, that the right screen of fig. 14A (100m) is 2 times smaller in scale than the right screen of fig. 14C (50m)).

As to dependent claim 15 (currently amended), Nimura further teaches:
means for converting the additional map data with respect to the screen coordinates (fig. 9, label S41-S43; fig. 10A-10B; col. 8, lines 51-57, that coverts the data as the coordinates change in scrolling);
means for combining the converted map data from the memory and the converted additional map data (col. 1, lines 63-67; col. 2, lines 1-5; col. 6, lines 7-16, that when the device is controlling the guidance it combines both map and converted data);

and means for displaying the map image encompassing a larger area than that covered by the original map image (fig. 13, labels S51-S55; fig 14A, 14C; col. 9, lines 15-32, that the right screen of fig. 14A (100m) is 2 times smaller in scale than the right screen of fig. 14C (50m)).

As to dependent claim 16, Nimura further teaches memory is a buffer memory or a map memory that is able to temporarily store the map data retrieved from the map data storage (fig. 1, labels 3, 4, 42; col. 6, lines 14-16).

As to dependent claim 17, Nimura further teaches map data storage is a CD-ROM (compact disc read only memory), DVD (digital versatile disc), or a hard disc which stores map information for conducting operations for the navigation system (fig. 1, labels 3; col. 4, lines 42-46).

As to dependent claim 18, Nimura further teaches the means for zooming the map image (fig. 14A, 14B, 14C; col. 9 lines 21-32) includes means for positioning an area of interest on the map image to the center of the screen (fig. 1, label 2; col. 4, lines 60-63) to the center of the screen (fig 15A, 15B; col. 9 lines 40-48).

As to dependent claim 19, Nimura further teaches:

means for positioning an area of interest on the map image to the center of the screen (fig 15A, 15B; col. 9 lines 40-48);

means for zooming-in the map image to a degree that new information for selecting a destination is displayed on the screen (fig. 13, labels S51-S55; fig. 14C, 14A; col. 9, lines 15-32,

that the right screen of fig 14C (50m) is multiplied by 2 times larger in scale than the right screen of fig 14A (100m));

and means for selecting the destination using the new information on the screen to calculate a route to the destination (col. 4, lines 60-67, col. 5 lines 1-3).

As to dependent claim 20, Nimura further teaches new information includes POI (point of interest) icons (fig. 15B, label "POLICE OFFICE, GS and POST OFFICE") showing positions and categories of POIs on the screen (fig. 15A; col. 10, lines 3-7).

Response to Arguments

4. Applicant's arguments filed 05/21/2007 have been fully considered but they are not persuasive. Therefore, rejected to claims 1-3, 5-13 and 15-20 is maintained.

a. Applicant argues that Nimura does not disclose the description that describe how to perform the map scrolling and, in particular, how to retrieve map data and using additional data to cover the insufficient area.

In response, Examiner is not persuaded respectfully submits that the combined teaching of Nimura and Morimoto explicitly teach storing the map data converted to the screen coordinates in a memory (fig. 1, labels 1, 8; col. 3, lines 52-62; col. 13, lines 47-61; col. 10, lines 10-31) which operates faster than the map data storage (col. 5, lines 53-54, 66-67; col. 6, lines 1-6); and wherein the map data read out from the map data storage covers an area which is larger than that corresponds to the screen of the navigation system (col. 2, lines 25-34), and the

converted data in the memory is used as is when zooming-in the map image (fig. 2; col. 2, lines 34-40; col. 7, lines 19-25), and additional map data is retrieved from the map data storage when zooming-out the map image when the converted map data in the memory is insufficient (fig. 3; col. 8, lines 21-36). The teachings of Nimura and Morimoto clearly show by storing and using the converted screen coordinates while holding in memory clearly update the display as required to cover area not previously displayed.

b. Applicant argues that Nimura does not disclose the mechanism of the present invention to increase the operation speed for zooming-in and zooming out the image on the navigation screen.

In response, Examiner is not persuaded respectfully submits that the combined teaching of Nimura and Morimoto explicitly teach storing the map data converted to the screen coordinates in a memory (fig. 1, labels 1, 8; col. 3, lines 52-62; col. 13, lines 47-61; col. 10, lines 10-31) which operates faster than the map data storage (col. 5, lines 53-54, 66-67; col. 6, lines 1-6). That Nimura and Morimoto clearly show by storing the converted data in memory it allows a faster access time to display the image without reading data from a physical storage device.

c. Applicant argues that Nimura does not disclose the idea of changing the size of the map image based on the distance from the center of the screen of the navigation system.

In response, Examiner is not persuaded respectfully submits that the combined teaching of Nimura explicitly teach means for zooming the map image by enlarging or shrinking distances of points on the map image relative to a center of the screen (fig. 13, labels 53-56; fig.

14A, 14B, 14C; fig. 15A, 15B; col. 9 lines 21-32, 40-48). Nimura clearly teaches the means for zooming the image from a center point of reference with the additional references used as stated above as showing by centering the image as in figures 15A and 15B.

It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332- 33,216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006,1009, 158 USPQ 275, 277 (CCPA 1968)).

The Examiner notes MPEP § 2144.01, that quotes In re Preda, 401 F.2d 825,159 USPQ 342, 344 (CCPA 1968) as stating "in considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." Further MPEP 2123, states that "a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. Merck & Co. v. Biocraft Laboratories,
874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy Osberg whose telephone number is 571-270-1258. The examiner can normally be reached on Monday-Friday (8:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTO

WEILUN LO
SUPERVISORY PATENT EXAMINER